



Yellow Grub - A Common Fish Parasite

EXTENSION

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Anglers are often upset to discover that their catch is riddled with grubs. These may be noticed only after the fish are cleaned or may immediately be visible on the body surface and fins (Figures 1 and 2). It is normal to occasionally find a fish with grubs.

You may be more familiar with the term “grub” referring to the larvae of beetles - these are different. The yellow grub is the most common parasite among our trematodes. The white grub and black grub are closely related and similar in appearance.



Figure 1. Bluegill with grubs (Photo courtesy Craig Banner, Oregon Department of Fish and Wildlife)

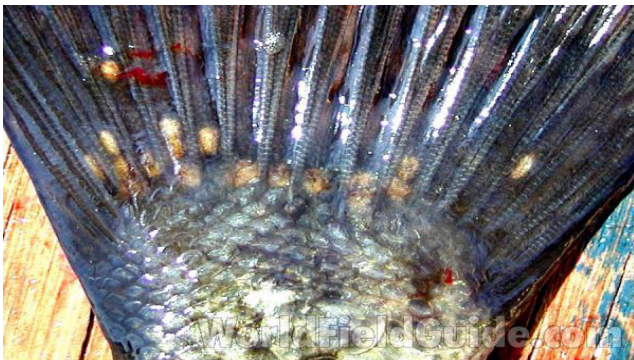


Figure 2. Yellow grubs visible on exterior of fish (Photo courtesy WorldFieldGuide.com)

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What is the source of the parasite?

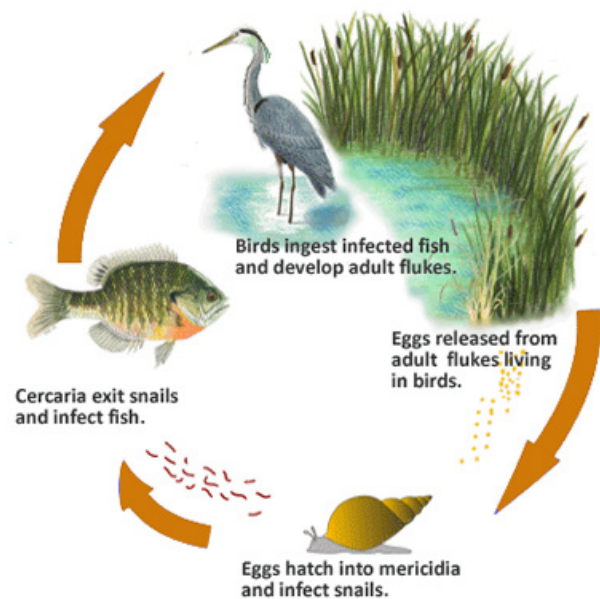
Fish eating birds, including herons, egrets, kingfishers, and cormorants, introduce the parasite to the pond. Aquatic snails are their next host. After developing in the snail the parasite seeks out fish as the final host (Figure 3).

Is there a human health risk?

There is no known risk to consuming fish with this parasite.

How can grubs be eliminated?

At present, breaking the life cycle of the parasite is the only method for dealing with it. This requires time and patience. Consider the following approaches to see which are feasible in your situation.



Yellow Grub Life Cycle *Clinostomum marginatum*

Figure 3. Life cycle of the yellow grub (Illustration courtesy North Central Regional Aquaculture Center)

- Never release heavily infested fish back into the pond. Bury or dispose of them elsewhere.
- Discourage fish eating birds from using the pond by eliminating nearby roosting sites
 - Be aware that it is usually illegal to shoot fish-eating birds or to harass them while they are on the nest.
- Reduce snail populations
 - Overly weedy ponds may benefit from herbicide application or deepening of shallow areas to reduce the plants upon which snails depend for food and cover.
 - Completely eliminating aquatic plants is a bad idea: fish populations need submerged weed beds for food and cover, and shoreline aquatic plants reduce wave erosion helping prevent muddiness.
 - Stock redear sunfish (Figures 4 and 5), a snail-eating fish which are a desirable addition to bass bluegill fishing ponds. If adding to a pond with an established fish population, they must be of a size large enough to avoid predation by bass. Commercial sources are difficult to find, leading many to consider catching and transferring fish from other ponds. They can be recognized by several features: a very long pectoral fin, red edge to the ear flap, three spines in the anal fin and nine to 11 spines in the dorsal fin. Private hatcheries sometimes have redear sunfish available for sale. See CR-9205, Fingerlings for Pond Stocking for more information.



Figure 4. Redear sunfish (Illustration courtesy U.S. Fish and Wildlife Service Digital Media Library)



Figure 5. Redear sunfish (Photo courtesy Kurt Kuklinski, Oklahoma Department of Wildlife Conservation)

Apply copper sulfate to overly weedy areas of the pond at the same rate used with algae. The local county Extension educator can advise on how to obtain an irrigation water test and calculate the amount needed. See the OSU fact sheet series for the following publications: L-466, Aquatic Herbicides: Essential Information for New Applicators and SRAC-360, Aquatic Weed Management: Control methods for more information.

Drain and dry the pond, eliminating all fish and snails. To accomplish this, the pond bottom must be completely dry. If wet spots cannot be dried, treatment of these areas with quicklime is recommended.

How long will it take to see effects?

The steps above aim to break the life cycle of the parasite and prevent or reduce new parasites burrowing into your fish. The existing grubs already in the fish will eventually die and be absorbed. The time required for grubs to disappear is unknown but periods of more than one year are possible.

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